

Remarks:

Claims

By the present amendment, claims 1-7 have been amended to more particularly and distinctly describe the invention; and claims 9-13 have been added. Accordingly, claims 1-13 are pending.

It is believed that the total number of total claims and of independent claims remains less than the amount for which fees were previously paid.

Support for the amendments is apparent and no new matter is added.

Claim Rejections - 35 U.S.C. §112, Second Paragraph

Claims 2 and 3 stand rejected under 35 U.S.C. §112, second paragraph based on assertion that the claims did not particularly and distinctly claim the subject matter that Applicant regards as his invention.

In particular, the Examiner noted that there was no antecedent basis for the term “fluid” in claims 2 and 3. Applicants have deleted the objected term in the amended claims.

The Examiner also noted that the term “carbon dioxide” was misspelled. Applicants have corrected the misspelling in amended claim 3.

Reconsideration of the rejections under 35 U.S.C. §112, second paragraph are respectfully requested.

Claim Rejection - 35 U.S.C. §102(b)- Bondioli et al.

Claims 1 and 2 stand rejected under 35 U.S.C. 102(b) as allegedly being clearly anticipated by Bondioli et al. (JAOCS 69 (5) 477).

Applicants respectfully disagree. The claimed invention relates to a method of fractionating cooking oils to obtain a refined oil and residue. This inexpensive method is carried out with the aid of a solvent taken to supercritical pressure by using very simple equipment. In particular, the equipment contains a mixer within which the oil to be treated and the solvent at supercritical pressure are intimately mixed. The equipment is also composed of a decanter within which the diphasic mixture is separated into two phases, a heavy phase (containing non-extracted oil residue and a low concentration of solvent at supercritical pressure dissolved

therein) and a light phase (containing the components of the oil dissolved in the solvent at supercritical pressure).

Bondioli et al. does not anticipate the claimed invention because it fails to disclose a method that uses a mixer to contact the solvent at supercritical pressure and the oil to be treated. The reference also fails to disclose a decanter to effect the separation of the refined oil and residue. In fact, the process disclosed in Bondioli et al. relies on the use of packed columns and counter-current extraction to effect the separation.

Applicants' claimed method provides several economic advantages over the method disclosed in Bondioli et al. The claimed method uses a lower solvent-to-oil ratio to achieve the separation of the refined oil. In addition, equipment costs associated the claimed method are significantly less than the equipment costs associated with more sophisticated apparatus disclosed in Bondioli et al. Therefore, the claimed invention is distinct. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim Rejection - 35 U.S.C. §102(b)- Ooi et al.

Claims 1-3, 5 and 8 stand rejected under 35 U.S.C. 102(b) as allegedly being clearly anticipated by Ooi et al. (JAOCS 73(2) 233).

Applicants respectfully disagree. As noted above, the claimed invention relates to a inexpensive method of fractionating cooking oils to obtain a refined oil by using very simple equipment. The equipment contains a mixer within which the oil to be treated and the solvent at supercritical pressure are intimately mixed. The equipment is also composed of a decanter within which the diphasic mixture is separated into two phases, a heavy phase and a light phase.

Ooi et al. does not anticipate the claimed invention because it also fails to disclose a method that uses a mixer to contact the solvent at supercritical pressure and the oil to be treated. Ooi et al. also fails to disclose a decanter to effect the separation of the refined oil and residue. Here again, the process disclosed in Ooi et al. relies on the use of packed columns and counter-current extraction to effect the isolation of the refined oil. As such, the method disclosed in Ooi et al does not provide the same economic advantages (i.e., lower solvent-to-oil ratios and lower equipment costs) as Applicants' claimed method. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

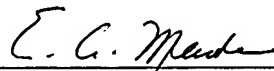
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Closing Remarks

Applicants thank the Examiner for the Office Action and believe this response to be a full and complete response to such Office Action. Accordingly, favorable reconsideration in view of this response and allowance of the pending claims are earnestly solicited.

Respectfully submitted,


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